

Restriction/Election

Restriction to one of the following inventions has been required under 35 USC 121:

I. Claims 1-28, drawn to a method for treating a patient suffering from a cancerous disease comprising: administering to said patient an anti-cancer antibody or fragment; said antibody being an isolated monoclonal antibody or antigen binding fragment thereof which binds to an antigenic moiety expressed by said cancerous tissue, said antigenic moiety characterized as being bound by an antibody having the identifying characteristics of a monoclonal antibody encoded by a clone deposited with the ATCC as PTA-5643, classified in class 424, subclass 141.1.

II. Claims 29-32, drawn to a binding assay to determine a presence of cells which express an MCSP antigenic moiety which specifically binds to an isolated monoclonal antibody encoded by the clone deposited with the ATCC as PTA-5643, or an antigen binding fragment thereof, classified in class 435, subclass 7.21.

III. Claims 33-40, drawn to a method of extending survival by treating a human tumor in a mammal, wherein said tumor expresses an antigen which specifically binds to a monoclonal antibody or antigen binding fragment thereof which has the identifying characteristics of a monoclonal antibody encoded by a clone deposited with the ATCC as accession number PTA-5643 comprising administering to said mammal said monoclonal antibody in an amount effective to reduce said mammal's tumor burden, whereby survival is extended, classified in class 424, subclass 141.1.

It is noted for Applicant's convenience that this is a requirement for the election of a Group for examination NOT a requirement for an election of species because although the claims are presented in Markush format, the claims are drawn to methods with different objectives which do not share, as a whole, a substantial feature disclosed as being essential to their utility. Thus, the analysis of the claims, for restriction purposes, is subject to the findings of the court wherein the court found that the unity of invention exists wherein entities included within a Markush group share a substantial structural feature disclosed as being essential to utility of the invention. *In re Harnisch*, 631 F.2d 716, 206 USPQ 300 (CCPA 1980); and *Ex parte Hozumi*, 3 USPQ2d 1059 (Board of Patent Appeals and Interferences 1984). Since the members of the group do not share a substantial structural feature disclosed as being essential to utility of the invention, the group as claimed fails the Harnisch test and the claims are not accorded Markush restriction practice because they do not meet the requirements to be accorded Markush practice under MPEP 803.02.

IV. Claims 33-40, drawn to a method of delaying disease progression by treating a human tumor in a mammal, wherein said tumor expresses an antigen which specifically binds to a monoclonal antibody or antigen binding fragment thereof which has the identifying characteristics of a monoclonal antibody encoded by a clone deposited with the ATCC as accession number PTA-5643 comprising administering to said mammal said monoclonal antibody in an amount effective to reduce said mammal's tumor burden, whereby disease progression is delayed, classified in class 424, subclass 141.1.

It is noted for Applicant's convenience that this is a requirement for the election of a Group for examination NOT a requirement for an election of species because although the claims are presented in Markush format, the claims are drawn to methods with different objectives which do not share, as a whole, a substantial feature disclosed as being essential to their utility. Thus, the analysis of the claims, for restriction purposes, is subject to the findings of the court wherein the court found that the unity of invention exists wherein entities included within a Markush group share a substantial structural feature disclosed as being essential to utility of the invention. *In re Harnisch*, 631 F.2d 716, 206 USPQ 300 (CCPA 1980); and *Ex parte Hozumi*, 3 USPQ2d 1059 (Board of Patent Appeals and Interferences 1984). Since the members of the group do not share a substantial structural feature disclosed as being essential to utility of the invention, the group as claimed fails the Harnisch test and the claims are not accorded Markush restriction practice because they do not meet the requirements to be accorded Markush practice under MPEP 803.02.

The Examiner has also required the following Species Elections:

Species Elections for Group I

A. Claims 1, 12, and 23 are generic to the following disclosed patentably distinct species of antibody:

- 1) conjugated
- 2) not conjugated

If Applicant elects species A1 then Applicant must elect a species from B.

B. Claims 1, 12, and 23 are generic to the following disclosed patentably distinct species of conjugates:

- 1) toxins
- 2) enzymes
- 3) radioactive compounds
- 4) hematogenous cells

C. Claims 1 and 12 are generic to the following disclosed patentably distinct cytotoxicity mediated by the antibody:

- 1) antibody dependent cellular toxicity
- 2) complement dependent cellular toxicity
- 3) catalyzing of the hydrolysis of cellular chemical bonds

- 4) producing an immune response against putative cancer antigens residing on tumor cells
- 5) targeting of cell membrane proteins to interfere with their function
- 6) production of a conformational change in a cellular protein effective to produce a signal to initiate cell-killing

D. Claim 23 is generic to the following disclosed patentably distinct species of antibody:

- 1) murine
- 2) human

Species Elections for Groups III and IV

A. Claim 33 is generic to the following disclosed patentably distinct species of antibody:

- 1) conjugated
- 2) not conjugated

If Applicant elects A1 then Applicant must elect a species from B.

B. Claim 33 is generic to the following disclosed patentably distinct species of conjugates:

- 1) cytotoxic moiety
- 2) radioactive isotope

C. Claim 33 is generic to the following disclosed patentably distinct cytotoxicity mediated by the antibody:

- 1) antibody activates complement
- 2) antibody mediates antibody dependent cellular cytotoxicity

D. Claim 33 is generic to the following disclosed patentably distinct species of antibody:

- 1) murine
- 2) human

REMARKS

Applicants herein elect, with traverse, Group I (claims 1-28) for prosecution on the merits. Additionally, Applicants herein elect, with traverse, species A2 (non-conjugated antibodies), species C6 (conformational change) and species D1 (murine).

Applicants are not required to elect a species from species B of Group I because species B are conjugates and Applicants have elected non-conjugated antibodies. Similarly, Applicants are not required to make any election of species with regard to Groups III-IV since Applicants elected Group I for prosecution on the merits.

Claims 3-9, 14-20, 25, 26 and 29-40 are withdrawn from consideration. It is understood that claims 3-9, 14-20, 25, 26 and 29-40, drawn to the non-elected inventions and species, will remain pending, albeit withdrawn from consideration on the merits at this time. Applicants retain the right to present the non-elected claims 3-9, 14-20, 25, 26 and 29-40 in a divisional application.

No new matter has been added by the amendment to the specification made herein. The "Reference to Related Applications" section has been amended to update the status of the related applications.

Traversal of Restriction (Groups)

The Examiner states that the inventions of Groups I-IV are directed to related methods. The related inventions are distinct if the inventions as claimed do not overlap in scope, i.e. are mutually exclusive; the inventions as claimed are not obvious variants; and the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP 806.05(j).

The Examiner acknowledges that, in the instant case, the methods are related in that they all use a monoclonal antibody encoded by a clone deposited with the ATCC as PTA-5643. The Examiner then asserts that the inventions of Groups I-IV are materially distinct methods that differ at least in objectives, method steps, response variables, and/or criteria for success.

The Examiner asserts that the method of Group I is distinct in that it has the distinct objective of treating a patient suffering from a cancerous disease. The method of Group II is distinct in that it has the distinct objective of determining the presences of cells which express a MCSP antigenic moiety. The method of Group III is distinct in that it has the distinct objective of extending survival by treating a human tumor in a mammal. The method of Group IV is distinct in that it has the distinct objective of delaying disease progression by treating a human tumor in a mammal.

Furthermore, the Examiner asserts that searching all of the inventions of Groups I-IV would invoke a burdensome search. Some of the inventions have been classified separately. Thus, each of these inventions has attained recognition in the art as a separate subject for inventive effort, and also as a separate field of search. Although some of the inventions are classified similarly, classification of subject matter is merely one indication of the burdensome nature of the search involved. The literature search, particularly relevant in this art, is not coextensive and is much more important in evaluating the burden of search.

The Examiner concludes that because these inventions are distinct for the reasons given above and the search required for one group is not required for another group, restriction for examination purposes as indicated is proper.

Applicants respectfully disagree with the Examiner's determination.

First, Applicants respectfully point out that a "Markush format" refers to recitation in a claim of a group of alternatively useable members using the phrase "...selected from the group consisting of..." Claims 33-40 do not recite this phrase, thus, contrary to the Examiner's assertion, are not presented in a Markush format.

The Examiner acknowledges that the methods of Groups I-IV are related in that they all use a monoclonal antibody encoded by a clone deposited with the ATCC as PTA-5643, but asserts that the related methods are distinct methods that differ in objectives, method steps, response variables, and/or criteria for success.

Applicants respectfully assert that the inventions of Groups I, III and IV have the same objectives, method steps and criteria for success.

Group I is drawn to a method of treating a patient suffering from a cancerous disease by administering a monoclonal antibody encoded by a clone deposited with the ATCC as PTA-5643. Group III is drawn to a method of extending survival by treating a human tumor, i.e. cancerous disease, by administering a monoclonal antibody encoded by a clone deposited with the ATCC as PTA-5643. Group IV is drawn to a method of delaying disease progression by treating a human tumor, i.e. cancerous disease, by administering a monoclonal antibody encoded by a clone deposited with the ATCC as PTA-5643. Thus, it is clear that the three groups have the same objective, i.e. treatment of cancerous disease, carried out by the same method, i.e. administration of a monoclonal antibody encoded by a clone deposited with the ATCC as PTA-5643.

The treatment methods of Groups I, III and IV and the binding assay of Group II are each dependent upon the ability of the monoclonal antibody to interact with a MCSP antigenic moiety. Thus, Groups I-IV have the same criteria for success, i.e. the binding of the monoclonal antibody to a MCSP antigenic moiety.

Furthermore, the Examiner asserts that searching all of the inventions of Groups I-IV would invoke a burdensome search.

Applicants respectfully disagree and assert that the searches of all four groups overlap. Applicants point out that all four groups use the same specific monoclonal antibody encoded by the clone deposited with the ATCC as PTA-5643. Thus, a search conducted for any of Groups I-IV would encompass this antibody.

Accordingly, based upon all of the above arguments, Applicants respectfully request that the Examiner reconsider the requirement for restriction under 35 USC 121.

Traversal of the Election of Species

The Examiner states that in accordance with the decisions in *In re Harnisch*, 631 f.2d 716, 206 USPQ 300 (CCPA 1980); and *Ex parte Hozumi*, 3 USPQ2d 1059 (Board of Patent Appeals and Interferences 1984), restriction of a Markush group is proper where the compounds within the group either (1) do not share a common utility, or (2) do not share a substantial structural feature disclosed as being essential to that utility. In addition, a Markush group may encompass a plurality of independent and distinct inventions where two or more members are so unrelated and diverse that a prior art reference anticipating the claim with respect to one of the members would not render the other member(s) obvious under 35 USC 103. Since the decisions in *In re Weber*, 198 USPQ 328 (CCPA 1978) and *In re Hass*, 198 USPQ 334 (CCPA 1978), it is proper for the Office to refuse to examine that which Applicants regard as their invention, if the subject matter in a claim lacks unity of invention, see MPEP 803.02.

The Examiner asserts that the species designated are independent or distinct because they comprise structurally distinct molecules and have different modes of operation and different effects. Further, each species would require different searches and the consideration of different patentability issues.

Applicants respectfully disagree with the Examiner's determination.

The Examiner first requires an election of a non-conjugated antibody or a conjugated antibody, and if a conjugated antibody is elected, the Examiner further requires an election of a type of conjugate (toxins, enzymes, radioactive compounds and hematogenous cells).

Applicants respectfully submit that the non-conjugated and conjugated antibodies are not independent inventions since conjugation is a further limitation on the antibody. Furthermore, conjugated antibodies comprise the same antibody as the non-conjugated antibodies (shared structure) which works by binding a MCSP antigenic moiety (shared mode of operation) to treat a cancerous disease (shared effects). A search for the non-conjugated antibody and a conjugated

antibody clearly overlaps.

Thus, Applicants respectfully submit that this election of species (non-conjugated and conjugated) is improper.

The types of conjugates (toxins, enzymes, radioactive compounds and hematogenous cells) are presented in a Markush format.

Applicants respectfully point out that the restriction of a Markush group is proper **only** where the compounds within the group either (1) do not share a common utility, or (2) do not share a substantial structural feature disclosed as being essential to that utility (emphasis added by Applicants).

The four types of conjugates disclosed share both a common utility, i.e. treatment of a cancerous disease, and a common structural feature, i.e. each type is conjugated with the specific monoclonal antibody encoded by the clone deposited with the ATCC as PTA-5643. Furthermore, utility of the treatment is dependent upon the binding of the monoclonal antibody to a MCSP antigenic moiety, i.e. the four types of conjugates share an antibody which is essential to the utility as disclosed (treatment of cancerous disease). A search for each of the four types of conjugates clearly overlaps.

Thus, Applicants respectfully submit that this election of species (types of conjugates) is improper.

The Examiner next requires an election of the type of cytotoxicity mediated by the antibody (for types see above section, Species Elections for Group I C).

All six types of cytotoxicity mediated by the described antibody are not independent

inventions because each type places a further limitation on the antibody by defining how the cytotoxicity of the antibody is achieved. All six types have the same effect, i.e. cytotoxicity. A search of the prior art should center on the specific monoclonal antibody. For example, one of skill in the art would not attempt to search each of the six types of cytotoxicity mediated without connecting the search to the antibody since a search of the six types alone would result with thousands of hits related to many different antibodies. Accordingly, the search for types of cytotoxicity is considered overlapping and thus, the election of species is improper.

The Examiner additionally requires an election of either a murine antibody or a human antibody.

However, Applicants respectfully submit that there are no human antibodies disclosed; the antibodies disclosed in the instant specification are murine antibodies and murine antibodies that have been humanized.

Accordingly, based upon all of the above arguments, Applicants respectfully request that the Examiner reconsider the requirement for election of species.

CONCLUSION

Now that Applicants have fully responded to the Office Action mailed on September 6, 2006,
an examination on the merits is respectfully requested.

Respectfully submitted,

A handwritten signature in cursive script, reading "Ferris H. Lander". The signature is written in dark ink and is positioned above a horizontal line.

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